

Application No. 10/722,928  
Attorney Docket No. 102289-100

### REMARKS

Reconsideration of this application is respectfully requested. No claims are amended or cancelled. Claims 7, 16-32 are withdrawn from consideration. Claims 1-6, 8-15 and 33 are presented for further examination. Applicants respectfully submit that no new matter has been added.

Claims 1-6, 8-15 and 33 stand rejected under 35 USC 103(a) as allegedly being obvious over Laver, U.S. Patent 5,516,472, Dawson-Andoh et al., Abstract from Vinyltec 2003 Conference, and Lyon et al., U.S. Patent 6,042,877. Applicants respectfully traverse the rejection.

Laver discloses an extrusion process for combining an organic fibrous material with a thermoplastic material to form a wood-imitating composite (Abstract). Laver discloses further that the product may contain lubricants such as zinc stearate. The product produced by the process disclosed in Laver is not antimicrobially protected.

Dawson-Andoh et al. discloses that rigid PVC-wood flour composite lumber containing either maple or pine wood flour was colonized and discoloured by fungi. However, Dawson-Andoh et al. does not provide any solution to the problem.

Lyon et al. discloses a two-step methodology for imparting antimicrobial efficacy to a variety of products. The method includes the steps of: (1) coating the article with a solution containing a chelating polymer and a metal ion and (2) treating the coated article with an antimicrobial solution (Abstract). The outstanding Office Action selectively applies only step (2) of Lyon's two-step methodology to the wood composite produced by the Laver et al. process and alleges that the combination produces the instantly claimed invention.

Applicants respectfully submit that the combination of Lyon et al. and Laver et al. as applied by the Office Action is improper since that combination requires one to selectively ignore one of the two steps mandated by Lyon's disclosed methodology, namely, coating the article with a solution containing a chelating polymer and a metal ion. To ignore that step runs counter to the specific teaching of Lyon et al.. Accordingly, the combination is respectfully believed to be improper.

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Indeed, Applicants submit that absent of impermissible hindsight, one skilled in the art would apply both steps disclosed in Lyon et al. to the wood composite and arrive at a process wherein a metal ion is added to the product after the product is formed in order to facilitate the formation of an antimicrobial complex - "chelating polymer-metal ion-potentiator" complex on the product's surface.

The statement made at page 8, paragraph 3 of the outstanding Office Action that "[n]owhere does Lyon et al state that a 'chelating polymer-metal ion-potentiator complex' is formed, much less that it is this particular 'complex' which confers antimicrobial activity to the product," is respectfully believed to be misplaced. Lyon et al. clearly discloses in paragraph 5 of the Summary of the Invention portion that not only is a "chelating polymer-metal ion-potentiator" complex formed, but also that it is this complex that confers antimicrobial activity to the finished product.

At column 2, lines 26-28 of Lyon et al., patentee states that it provides a method for the application of an antimicrobial complex to a variety of substrates. Lyon et al. states further that this complex is chitosan-based, and in particular a chitosan-metal-pyrithione complex. See column 2, lines 28-32. According to Lyon et al., chitosan is a preferred chelating polymer. See column 3, lines 6-8. And pyrithiones are suitable potentiators. See column 5, lines 7-8. Therefore, Lyon et al. discloses the formation of a "chelating polymer-metal ion-potentiator" complex.

On column 2, lines 32-37, Lyon et al. discloses that a chitosan-metal-pyrithione complex can be applied to a substrate surface to provide the finished article and the like with antimicrobial properties that will withstand repeated uses of the article even after significant water exposure. Accordingly, Lyon et al. discloses that chitosan-metal-pyrithione complex, i.e., a "chelating polymer-metal ion-potentiator" complex confers antimicrobial activity.

In view of the above-mentioned disclosures, a combination of the relevant teachings of Laver et al. and Lyon et al. at all, would suggest applying the Lyon et al. process as a whole to the composite disclosed by Laver. Otherwise, if step (2) of the process disclosed in Lyon et al. is selectively applied to the extruded product disclosed by Lyon, no chelating polymer-metal ion-potentiator complex would form. This would be contrary to the teaching of Lyon et al. that such

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complex is required to provide a sustaining antimicrobial efficacy. In addition, as discussed in detail above, to ignore one of the two steps mandated by Lyon et al.'s disclosure runs counter to the specific teachings of Lyon et al. Accordingly, Applicant respectfully submit that the combination is improper.

Applicants submit that there is no proper motivation to combine the teachings of cited references. Moreover, Applicants submit that absent using inexpressible hindsight reasoning with full knowledge of the present invention, even if the teachings of Lyon et al. and Lave were combined, the combined references would not disclose or suggest the instantly claimed invention, but rather one wherein forms an antimicrobial "chelating polymer-metal ion-pyrithone" complex on the surface of the article to be treated.


In view of the foregoing, withdrawal of the outstanding rejections and allowing all the claims are respectfully requested.

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Respectfully submitted,  
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Date:

10/29/08

  
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